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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,928	12/31/2001	James M. Doherty	T00362	5904
26381	7590	10/14/2009	EXAMINER	
IP Authority, LLC			CHANKONG, DOHIM	
Ramraj Soundararajan			ART UNIT	
4821A Eisenhower Ave			PAPER NUMBER	
Alexandria, VA 22304			2452	
			NOTIFICATION DATE	DELIVERY MODE
			10/14/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/029,928

**Applicant(s)**

DOHERTY, JAMES M.

**Examiner**

DOHM CHANKONG

**Art Unit**

2452

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is in response to Applicant's request for continued examination which was filed on 8/24/2009. Claims 29, 36, and 43 are amended. Claims 1-28 were previously cancelled. Accordingly, claims 29-43 are presented further examination. This action is a non-final rejection.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/24/2009 has been entered.

#### ***Response to Arguments***

In response to the decision of the Board of Appeals which was decided on June 25, 2009, Applicant amends the independent claims to recite two new limitations: (1) said economic setpoint information being a cost below which the cost of the operation of the residential device must stay; and (2) the control server determines the control parameters based upon an optimal level within the economic setpoint. Applicant argues that neither *Petite* or *Mecham* disclose these new features.

Applicant's argument is not persuasive with respect to the first feature because *Mecham* does disclose setting an economic setpoint exactly as described in Applicant's specification. Applicant's specification does not expressly define the term "economic setpoint" but does give some indication as to how the term may be interpreted. For example, paragraph 17 of the published specification recites the use of client software:

"to allow a user to configure an economic setpoint of operation of residential device 107. For instance, the user may want to limit the amount of electricity used by residential device 107 during a particular time period so as to keep electric costs low. In this case, residential device 107 will be controlled during the time period *so as to not exceed the specified electric usage.*"

The implication of the foregoing paragraph is that the user may configure an economic setpoint by specifying a specific electric usage.

Moreover, paragraph 22 states that:

"a user can configure an economic setpoint for the control of irrigation system 207. For instance, the user may want to keep the water usage and electricity usage of irrigation system 207 below a certain point during each month so as to keep water and electricity costs low."

Again, this paragraph extends the possible interpretation of an economic setpoint to include water usage.

Thus, based on the foregoing description in Applicant's specification, an "economic setpoint" is merely water and/or electrical usage that may be specified by a user. In other words, despite the use of the adjective "economic" to describe setpoint, based on Applicant's own description, an "economic setpoint" does not refer to a monetary amount but a usage amount which would have the obvious consequence of reducing one's bills.

*Mecham* discloses this interpretation of "economic setpoint." Specifically, and as noted by Applicant, *Mecham* discloses the feature of comparing requested watering needs to a watering budget and providing the water "only if the requested irrigation amounts meet any imposed

budget limitations" [column 18 «lines 60-62»]. *Mecham's* watering budget reads on Applicant's claimed economic setpoint because the budget relates to specified limits on the water usage.

Applicant's argument is persuasive with respect to the second limitation. The following rejection therefore relies upon a new art to teach these new feature.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- I. **CLAIMS 29-43 ARE REJECTED UNDER 35 U.S.C. 103(A) AS BEING UNPATENTABLE OVER *PETITE ET AL.* (U.S. PATENT NUMBER 6,437,692), HEREINAFTER REFERRED TO AS *PETITE*, IN VIEW OF *MECHAM ET AL.* (U.S. PATENT NUMBER 6,314,340), HEREINAFTER REFERRED TO AS *MECHAM*, IN FURTHER VIEW OF *HERGERT*, U.S. PATENT NO. 6,108,590.**

*Petite* disclosed a system for monitoring and controlling remote devices wherein the remote devices may be sensors that communicate wirelessly with a local gateway via transceivers. In an analogous art, *Mecham* disclosed an irrigation controller that collects and utilizes environmental data.

All citations in the following mapping refer to *Petite* unless otherwise noted. Some claims will be discussed together. Those claims which are essentially the same except that they set forth the claimed invention as a control server or an article of manufacture are rejected under the same rationale applied to the described claim.

**Claims 29, 36, and 43**

A residential gateway that connects a Wide Area Network (WAN) to an in-home network (*Petite*, local gateway 210 and column 17, lines 35-42), said residential gateway connecting at least one residential device over said in-home network, the residential gateway:

forwarding state information of said at least one residential device to a control server over said WAN (*Petite*, column 12, lines 24-40);

forwarding economic setpoint information to said control server over said WAN (*Petite*, column 13, lines 19-30), said economic setpoint information being a cost below which the cost of operation of the residential device must stay (see Response to Arguments | *Mecham*, column 18 «lines 60-62»);

receiving control parameters from said control server over said WAN (*Petite*, column 6, lines 15-30), said control parameters determined by the control server based on at least the following information: relevant control information accessed from one or more climatic information providing servers on said WAN (*Mecham*, column 1, lines 43-48), said forwarded state information of said at least one residential device (*Petite*, column 14, line 51 through column 15, line 1) and said forwarded economic setpoint information (*Petite*, column 13, lines 8-30), wherein the control server determines the control parameters based upon an optimal level within the economic setpoint (*Hergert*, column 2 «lines 54-67»: controlling irrigation requirements in accordance with predetermined constraints | column 3 «line 46» to column 4 «line 25»: optimizing control parameters such as irrigation requirements within an economic limit).

whereby said residential gateway controls said at least one residential device based on said received control parameters (*Petite*, column 13, lines 19-23).

*Petite* did not explicitly disclose: (1) information accessed from a climatic information providing server; (2) said economic setpoint information being a cost below which the cost of operation of the residential device must stay; and (3) wherein the control server determines the control parameters based upon an optimal level within the economic setpoint. However, all three features were well known in the art at the time of Applicant's invention as evidenced by *Mecham* and *Hergert*.

*Mecham* discloses the first and second limitations. As indicated in the foregoing mapping, *Mecham* discloses the use of weather station servers to provide climatic information. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of *Petite* by adding the ability to utilize information accessed from a climatic information providing server as provided by *Mecham*. Here the combination satisfies the need for advanced monitoring and control system solutions in distributed systems. See *Petite*, column 2, lines 28-30.

*Mecham* also discloses that said economic setpoint information being a cost below which the cost of operation of the residential device must stay. It would have been obvious to one of ordinary skill in the art to have modified *Petite* to include the setpoint features taught by *Mecham*. Such a modification to *Petite* is an example of using a known technique (*Mecham*'s economic setpoint feature) to improve similar systems (*Petite*'s remote monitoring and controlling system) in the same way (*Petite* improved to include a feature to keep water and electrical usage within a budget). See *MPEP* § 2143.

Finally, *Hergert* discloses the third limitation where a control server determines the control parameters based upon an optimal level within the economic setpoint. It would have been obvious to one of ordinary skill in the art to have modified *Petite* to include the optimization functionality taught by *Hergert*. Such a modification to *Petite* is an example of using a known technique (*Hergert*'s optimizing control parameters within a economic limit) to improve similar systems (*Petite*'s remote monitoring and controlling system) in the same way (*Petite* improved to include a feature optimize water schedules within economic limits). See *MPEP* § 2143.

#### **Claims 30 and 37**

*Petite* as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said at least one residential device is a home irrigation system (*Petite*, figure 8) comprising: an irrigation controller connected to said residential gateway (*Petite*, figure 8, item 814); and at least one sprinkler connected to said irrigation controller (*Petite*, figure 8, item 817).

#### **Claims 31 and 38**

*Petite* as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein a watering cycle constitutes said control parameters for said home irrigation system (*Petite*, column 13, lines 19-23).

#### **Claims 32 and 39**

*Petite* as modified by *Mecham* and *Hergert* discloses a residential gateway that connects



a Wide Area Network (WAN) to an in-home network, as per claim 31, wherein said watering cycle is also determined based on said economic point information (*Petite*, column 13, lines 23-30).

**Claims 33 and 40**

*Petite* as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said economic setpoint information is set to control amount of electricity or water used by said at least one residential device during a particular time period (*Petite*, column 13, lines 23-30).

**Claims 34 and 41**

*Petite* as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 30, wherein said irrigation controller is connected to said residential gateway via an IEEE 802.11b wireless interface (obviousness as discussed above in paragraph 14).

Concerning claims 34 and 41, *Petite* did not explicitly state the use of an IEEE 802.11b wireless interface. *Petite* does however state a wireless interface between the residential device and the residential gateway. See column 2, lines 54-62. Also, the IEEE 802.11b standard for wireless communications was well known in the art at the time of the applicant's invention so it would be a clear extension of *Petite*'s system to use this standard for his wireless communications since his system already includes a wireless interface. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of *Petite* by adding the ability to use an IEEE 802.11b wireless interface.

**Claims 35 and 42**

*Petite* as modified by *Mecham* and *Hergert* discloses a residential gateway that connects a Wide Area Network (WAN) to an in-home network, as per claim 29, wherein said Wide Area Network is the Internet (*Petite*, WAN 230).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday-Friday [8:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571.272.3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dohm Chankong/  
Primary Examiner, Art Unit 2452